Takashi HIRAYAMA

List of Publications by Year in Descending Order

81 papers	8,730 citations	41 h-index	82 g-index
82 ext. papers	10,139 ext. citations	7.3 avg, IF	5.82 L-index

#	Paper	IF	Citations
81	PARN-like Proteins Regulate Gene Expression in Land Plant Mitochondria by Modulating mRNA Polyadenylation. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	1
80	Temperature-dependent fasciation mutants provide a link between mitochondrial RNA processing and lateral root morphogenesis. *ELife*, **2021**, 10,	8.9	3
79	Genetic Elucidation for Response of Flowering Time to Ambient Temperatures in Asian Rice Cultivars. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	2
78	Decoding Plant-Environment Interactions That Influence Crop Agronomic Traits. *Plant and Cell Physiology*, **2020**, 61, 1408-1418	4.9	6
77	Regulation of the Poly(A) Status of Mitochondrial mRNA by Poly(A)-Specific Ribonuclease Is Conserved among Land Plants. *Plant and Cell Physiology*, **2020**, 61, 470-480	4.9	4
76	Hormonal and transcriptional analyses of fruit development and ripening in different varieties of black pepper (Piper nigrum). *Journal of Plant Research*, **2020**, 133, 73-94	2.6	6
75	The barley pan-genome reveals the hidden legacy of mutation breeding. *Nature*, **2020**, 588, 284-289	50.4	97
74	Exploration of Life-Course Factors Influencing Phenotypic Outcomes in Crops. *Plant and Cell Physiology*, **2020**, 61, 1381-1383	4.9	1
73	BdWRKY38 is required for the incompatible interaction of Brachypodium distachyon with the necrotrophic fungus Rhizoctonia solani. *Plant Journal*, **2020**, 104, 995-1008	6.9	5
72	Life-Course Monitoring of Endogenous Phytohormone Levels under Field Conditions Reveals Diversity of Physiological States among Barley Accessions. *Plant and Cell Physiology*, **2020**, 61, 1438-1448	4.9	1
71	Transcriptome Analysis and Identification of a Transcriptional Regulatory Network in the Response to HO. *Plant Physiology*, **2019**, 180, 1629-1646	6.6	22
70	Overexpression of Prunus DAM6 inhibits growth, represses bud break competency of dormant buds and delays bud outgrowth in apple plants. *PLoS ONE*, **2019**, 14, e0214788	3.7	34
69	The mechanism of SO -induced stomatal closure differs from O and CO responses and is mediated by nonapoptotic cell death in guard cells. *Plant, Cell and Environment*, **2019**, 42, 437-447	8.4	10
68	New Mechanism of Abscisic Acid Signaling Cascade: Survival Strategy for Plants to Adapt to Growing Environmental Change. *Kagaku To Seibutsu*, **2019**, 57, 736-742	0	
67	Plant hormone profiling in developing seeds of common wheat (L.). *Breeding Science*, **2019**, 69, 601-610	2	7
66	Computer vision-based phenotyping for improvement of plant productivity: a machine learning perspective. *GigaScience*, **2019**, 8,	7.6	49
65	Salicylic acid-dependent immunity contributes to resistance against Rhizoctonia solani, a necrotrophic fungal agent of sheath blight, in rice and Brachypodium distachyon. *New Phytologist*, **2018**, 217, 771-783	9.8	52

64	The Putative Peptide Gene FEP1 Regulates Iron Deficiency Response in Arabidopsis. *Plant and Cell Physiology*, **2018**, 59, 1739-1752	4.9	47
63	Loss of CG Methylation in Marchantia polymorpha Causes Disorganization of Cell Division and Reveals Unique DNA Methylation Regulatory Mechanisms of Non-CG Methylation. *Plant and Cell Physiology*, **2018**, 59, 2421-2431	4.9	11
62	Control of seed dormancy and germination by DOG1-AHG1 PP2C phosphatase complex via binding to heme. *Nature Communications*, **2018**, 9, 2132	17.4	77
61	Disruption of ureide degradation affects plant growth and development during and after transition from vegetative to reproductive stages. *BMC Plant Biology*, **2018**, 18, 287	5.3	13
60	Phytohormones in red seaweeds: a technical review of methods for analysis and a consideration of genomic data. *Botanica Marina*, **2017**, 60,	1.8	12
59	ahg12 is a dominant proteasome mutant that affects multiple regulatory systems for germination of Arabidopsis. *Scientific Reports*, **2016**, 6, 25351	4.9	1
58	Allantoin, a stress-related purine metabolite, can activate jasmonate signaling in a MYC2-regulated and abscisic acid-dependent manner. *Journal of Experimental Botany*, **2016**, 67, 2519-2532	7	73
57	Comprehensive quantification and genome survey reveal the presence of novel phytohormone action modes in red seaweeds. *Journal of Applied Phycology*, **2016**, 28, 2539-2548	3.2	33
56	ABI1 regulates carbon/nitrogen-nutrient signal transduction independent of ABA biosynthesis and canonical ABA signalling pathways in Arabidopsis. *Journal of Experimental Botany*, **2015**, 66, 2763-71	7	39
55	Crop improvement using life cycle datasets acquired under field conditions. *Frontiers in Plant Science*, **2015**, 6, 740	6.2	14
54	Abscisic acid induces ectopic outgrowth in epidermal cells through cortical microtubule reorganization in Arabidopsis thaliana. *Scientific Reports*, **2015**, 5, 11364	4.9	16
53	A unique system for regulating mitochondrial mRNA poly(A) status and stability in plants. *Plant Signaling and Behavior*, **2014**, 9, e973809	2.5	4
52	A poly(A)-specific ribonuclease directly regulates the poly(A) status of mitochondrial mRNA in Arabidopsis. *Nature Communications*, **2013**, 4, 2247	17.4	31
51	Elucidation of the RNA recognition code for pentatricopeptide repeat proteins involved in organelle RNA editing in plants. *PLoS ONE*, **2013**, 8, e57286	3.7	199
50	Multiple hormone treatment revealed novel cooperative relationships between abscisic acid and biotic stress hormones in cultured cells. *Plant Biotechnology*, **2012**, 29, 19-34	1.3	7
49	Isolation of Arabidopsis ahg11, a weak ABA hypersensitive mutant defective in nad4 RNA editing. *Journal of Experimental Botany*, **2012**, 63, 5301-10	7	51
48	The Regulatory Networks of Plant Responses to Abscisic Acid. *Advances in Botanical Research*, **2011**, 201-248	2.4	5
47	An ABRE promoter sequence is involved in osmotic stress-responsive expression of the DREB2A gene, which encodes a transcription factor regulating drought-inducible genes in Arabidopsis. *Plant and Cell Physiology*, **2011**, 52, 2136-46	4.9	185

46	A DNA-binding surface of SPO11-1, an Arabidopsis SPO11 orthologue required for normal meiosis. *FEBS Journal*, **2010**, 277, 2360-74	5.7	11
45	Research on plant abiotic stress responses in the post-genome era: past, present and future. *Plant Journal*, **2010**, 61, 1041-52	6.9	827
44	The PP2C-SnRK2 complex: the central regulator of an abscisic acid signaling pathway. *Plant Signaling and Behavior*, **2010**, 5, 160-3	2.5	28
43	ABA hypersensitive germination2-1 causes the activation of both abscisic acid and salicylic acid responses in Arabidopsis. *Plant and Cell Physiology*, **2009**, 50, 2112-22	4.9	28
42	Type 2C protein phosphatases directly regulate abscisic acid-activated protein kinases in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 17588-93	11.5	681
41	Metabolic movement upon abscisic acid and salicylic acid combined treatments. *Plant Biotechnology*, **2009**, 26, 551-560	1.3	15
40	The glycerophosphoryl diester phosphodiesterase-like proteins SHV3 and its homologs play important roles in cell wall organization. *Plant and Cell Physiology*, **2008**, 49, 1522-35	4.9	68
39	Systematic NMR analysis of stable isotope labeled metabolite mixtures in plant and animal systems: coarse grained views of metabolic pathways. *PLoS ONE*, **2008**, 3, e3805	3.7	73
38	ABA-Hypersensitive Germination1 encodes a protein phosphatase 2C, an essential component of abscisic acid signaling in Arabidopsis seed. *Plant Journal*, **2007**, 50, 935-49	6.9	208
37	Zinc finger protein STOP1 is critical for proton tolerance in Arabidopsis and coregulates a key gene in aluminum tolerance. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 9900-5	11.5	283
36	Cytological and biochemical analysis of COF1, an Arabidopsis mutant of an ABC transporter gene. *Plant and Cell Physiology*, **2007**, 48, 1524-33	4.9	77
35	Top-down phenomics of Arabidopsis thaliana: metabolic profiling by one- and two-dimensional nuclear magnetic resonance spectroscopy and transcriptome analysis of albino mutants. *Journal of Biological Chemistry*, **2007**, 282, 18532-18541	5.4	55
34	Perception and transduction of abscisic acid signals: keys to the function of the versatile plant hormone ABA. *Trends in Plant Science*, **2007**, 12, 343-51	13.1	368
33	ABA-hypersensitive germination3 encodes a protein phosphatase 2C (AtPP2CA) that strongly regulates abscisic acid signaling during germination among Arabidopsis protein phosphatase 2Cs. *Plant Physiology*, **2006**, 140, 115-26	6.6	284
32	A trial of phenome analysis using 4000 Ds-insertional mutants in gene-coding regions of Arabidopsis. *Plant Journal*, **2006**, 47, 640-51	6.9	96
31	Loss of Necrotic Spotted Lesions 1 associates with cell death and defense responses in Arabidopsis thaliana. *Plant Molecular Biology*, **2006**, 62, 29-42	4.6	43
30	Hetero-nuclear NMR-based Metabolomics **2006**, 93-101		4
29	Analysis of ABA hypersensitive germination2 revealed the pivotal functions of PARN in stress response in Arabidopsis. *Plant Journal*, **2005**, 44, 972-84	6.9	116

28	A novel Arabidopsis gene required for ethanol tolerance is conserved among plants and archaea. *Plant and Cell Physiology*, **2004**, 45, 659-66	4.9	5
27	AtIPT3 is a key determinant of nitrate-dependent cytokinin biosynthesis in Arabidopsis. *Plant and Cell Physiology*, **2004**, 45, 1053-62	4.9	295
26	Expression and interaction analysis of Arabidopsis Skp1-related genes. *Plant and Cell Physiology*, **2004**, 45, 83-91	4.9	64
25	Isolation and characterization of novel mutants affecting the abscisic acid sensitivity of Arabidopsis germination and seedling growth. *Plant and Cell Physiology*, **2004**, 45, 1485-99	4.9	67
24	Stable isotope labeling of Arabidopsis thaliana for an NMR-based metabolomics approach. *Plant and Cell Physiology*, **2004**, 45, 1099-104	4.9	125
23	A novel ethanol-hypersensitive mutant of Arabidopsis. *Plant and Cell Physiology*, **2004**, 45, 703-11	4.9	19
22	Quantitative trait loci analysis of nitrate storage in Arabidopsis leading to an investigation of the contribution of the anion channel gene, AtCLC-c, to variation in nitrate levels. *Journal of Experimental Botany*, **2004**, 55, 2005-14	7	55
21	A collection of 11 800 single-copy Ds transposon insertion lines in Arabidopsis. *Plant Journal*, **2004**, 37, 897-905	6.9	183
20	RCH1, a locus in Arabidopsis that confers resistance to the hemibiotrophic fungal pathogen Colletotrichum higginsianum. *Molecular Plant-Microbe Interactions*, **2004**, 17, 749-62	3.6	93
19	Hyperosmotic stress induces a rapid and transient increase in inositol 1,4,5-trisphosphate independent of abscisic acid in Arabidopsis cell culture. *Plant and Cell Physiology*, **2001**, 42, 214-22	4.9	152
18	Ethylene captures a metal! Metal ions are involved in ethylene perception and signal transduction. *Plant and Cell Physiology*, **2000**, 41, 548-55	4.9	41
17	A transmembrane hybrid-type histidine kinase in Arabidopsis functions as an osmosensor. *Plant Cell* , **1999**, 11, 1743-54	11.6	464
16	EIN2, a bifunctional transducer of ethylene and stress responses in Arabidopsis. *Science*, **1999**, 284, 2148-52	33.3	1010
15	RESPONSIVE-TO-ANTAGONIST1, a Menkes/Wilson disease-related copper transporter, is required for ethylene signaling in Arabidopsis. *Cell*, **1999**, 97, 383-93	56.2	351
14	Molecular responses to water stress inArabidopsis thaliana. *Journal of Plant Research*, **1998**, 111, 345-351	1.6	37
13	Functional cloning of a cDNA encoding Mei2-like protein from Arabidopsis thaliana using a fission yeast pheromone receptor deficient mutant. *FEBS Letters*, **1997**, 413, 16-20	3.8	22
12	AtPLC2, a gene encoding phosphoinositide-specific phospholipase C, is constitutively expressed in vegetative and floral tissues in Arabidopsis thaliana. *Plant Molecular Biology*, **1997**, 34, 175-80	4.6	62
11	A gene encoding a mitogen-activated protein kinase kinase kinase is induced simultaneously with genes for a mitogen-activated protein kinase and an S6 ribosomal protein kinase by touch, cold, and water stress in Arabidopsis thaliana. *Proceedings of the National Academy of Sciences of the United States of America*, **1996**, 93, 765-9	11.5	451

10	A cdc5+ homolog of a higher plant, Arabidopsis thaliana. *Proceedings of the National Academy of Sciences of the United States of America*, **1996**, 93, 13371-6	11.5	68
9	Cloning and characterization of seven cDNAs for hyperosmolarity-responsive (HOR) genes of Saccharomyces cerevisiae. *Molecular Genetics and Genomics*, **1995**, 249, 127-38		90
8	A gene encoding a phosphatidylinositol-specific phospholipase C is induced by dehydration and salt stress in Arabidopsis thaliana. *Proceedings of the National Academy of Sciences of the United States of America*, **1995**, 92, 3903-7	11.5	323
7	Exon-intron organization of the Arabidopsis thaliana protein kinase genes CDC2a and CDC2b. *FEBS Letters*, **1992**, 304, 73-7	3.8	57
6	Novel protein kinase of Arabidopsis thaliana (APK1) that phosphorylates tyrosine, serine and threonine. *Plant Molecular Biology*, **1992**, 20, 653-62	4.6	93
5	Identification of two cell-cycle-controlling cdc2 gene homologs in Arabidopsis thaliana. *Gene*, **1991**, 105, 159-65	3.8	143
4	Characterization of the virA gene of the agropine-type plasmid pRiA4 of Agrobacterium rhizogenes. *FEBS Letters*, **1990**, 271, 28-32	3.8	10
3	Putative start codon TTG for the regulatory protein VirG of the hairy-root-inducing plasmid pRiA4. *Gene*, **1989**, 78, 173-8	3.8	29
2	Organization and characterization of the virCD genes from Agrobacterium rhizogenes. *Molecular Genetics and Genomics*, **1988**, 213, 229-37		37
1	Ds Transposon Mutant Lines for Saturation Mutagenesis of theArabidopsis genome17-30		